

of Cook (USP 5,800,058). Additionally, claims 27-32 and 44-50 attracted a rejection under the same statutory provision based on Klein and Cook, and further in view of Schafhaus (USP 431,624). Applicants suggest that none of the applied references is appropriate against the claims pending herein.

At the outset, Applicants emphatically submit that no *prima facie* "obviousness" has been advanced and, as such, the rejections of record must be withdrawn. In this regard, applicants respectfully cannot find any explicit or implicit suggestion, motivation or teaching in Cook which would lead someone to combine Klein and Cook in the manner contemplated by the Examiner. Indeed, Cook actually teaches **against** such a combination.

Applicants note in this regard, that Cook is concerned with a batch type static mixer and thus for this reason alone is explicitly incompatible with the continuous type rotary mixer disclosed in Klein.<sup>3</sup> There is no flow *through* the apparatus in Cook. Instead, Cook suggests having a barrel with vanes arranged substantially radially and close to the wall of the barrel so that when a propeller or paddle mixer starts mixing the contents of the barrel, the vanes prevent a circulating flow from forming. While the vanes of Cook may be fixed-position or adjustably movable, they most certainly are by no means **freely rotatable** as required by the claims pending herein.

The structures of Cook thus relate to a static vortex elimination device – nothing more. The Cook structures thus are irrelevant to the rotary mixing structures disclosed by Klein and those claimed in the present invention. Thus, one of ordinary skill would not consider it possible, let alone "obvious", to employ a device as disclosed in Cook, which is intended to be installed inside a container as a *stationary* structure,

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<sup>3</sup> In this regard, the Examiner incorrectly characterizes Cook as teaching "a mixing *rotor*". As will be explained below, at best Cook teaches a bladed *stator* structure.

transversely relative to a flow pipe to be rotated by a continuous flow.<sup>4</sup> Certainly, no expectation of success could even be envisioned by such ordinarily skilled person.

The Federal Circuit has consistently and uniformly held that in order to be a *prima facie* case of "obviousness" under 35 USC §103(a), there must have been a suggestion that is clear from the prior art itself for a modification or combination to provide a claimed invention. For example, see the very clear decision in the case of *In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991), wherein the Court noted:

"Where claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis under §103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. See *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure. *Id.*" (Emphasis added.)

It is axiomatic therefore that there must have been some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to have selected the "references" and combined them in a way that would have produced the claimed invention.<sup>5</sup> As noted previously, no such suggestion, motivation and/or

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<sup>4</sup> The stationary nature of the Cook vane structures is explicitly taught, for example, at column 3, lines 23-29. Moreover, the function of such vanes and their irrelevance to the functions of the Klein vanes is disclosed explicitly at column 2, lines 36-48.

<sup>5</sup> See, e.g., *Heidelberger, Druckmaschinen AG v. Hantscho Commercial Prods., Inc.*, 30 USPQ2d 1377, 1379 (Fed. Cir. 1994) ("When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination."); *Northern Telecom Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990) (It is insufficient that the prior art disclosed the components of the patented device, either separately or used in

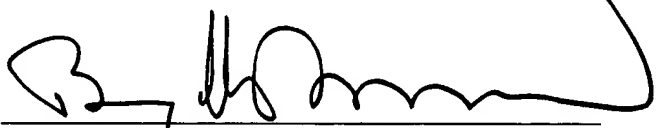
teaching exists in the Klein and Cook references employed by the Examiner to support the rejection advanced against 35 USC §103(a). As such, withdrawal of such rejection is in order.

Only brief mention needs to be made with respect to the applied Schafhaus reference. In this regard, while Schafhaus may disclose providing a "valve" of sorts, it clearly does not cure the statutory deficiencies with respect to the combination of Klein and Cook discussed above.

In conclusion, every effort has been made to advance prosecution of this application to allowance. Therefore, in view of the amendments and remarks above, applicants suggest that this application is in condition for allowance and Official Notice to that effect is solicited.

Respectfully submitted,

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other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor."); and *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 5 USPQ 1434, 1438 (Fed. Cir. 1988).

**APPENDIX I**

**Marked-Up Version of Specification Paragraph(s) Pursuant to 37 CFR §1.121(b)**

Please substitute the following paragraph beginning at page 1, line 14 in the specification for the corresponding paragraph previously presented.

Prior art mixers used for this purpose are disclosed, e.g., in US patents 5,279,709 and 5,575,559 and EP [060 150] 664 150, WO 93/07961, WO-A-96/32186, and WO-A-96/33007. It is a characteristic feature of all mixers of the art that they employ a rotatable rotor in order to provide a sufficient mixing efficiency. The rotatable rotor specifically refers to a member which is connected to the drive through a shaft and most usually receives its power from the electricity supply of the mill. Furthermore, the mixer construction is usually such that a certain pressure loss occurs in the mixer. In practice, it means that the power compensation corresponding to the pressure loss caused by the mixer has been taken into account when selecting a pump which operates at some stage of the process and precedes the mixer. So, in practice, power is lost in the pump for compensating the pressure loss of the mixer as well as in the mixer itself for rotating its rotor.

**APPENDIX II**

**Marked-Up Version of Amended Claims Pursuant to 37 CFR §1.121(c)**

32. (AMENDED) Apparatus as recited in claim 24, wherein said outlet includes [a diffuser-like] an outlet pipe which recovers dynamic pressure from the flow of mixed [pulp] suspension.

Please cancel claims 38 and 39.

40. Apparatus as in claim 37, [38 or 39,] wherein the conduit introduces the fluid medium directly into [said] an interior space of said mixer casing.

41. Apparatus as in claim 37, [38 or 39,] wherein said inlet includes inlet piping for the mass flow of material, and wherein said conduit introduces the fluid medium into the inlet piping.

42. Apparatus as recited in claim 37, [38 or 39,] wherein said inlet is provided with at least one throttling member which throttles the mass flow of material into said casing.

47. Apparatus as recited in claim 37, [38 or 39,] further comprising at least one stationary mixing member disposed within said casing.

50. Apparatus as recited in claim 37, [38 or 39,] wherein said outlet includes [a diffuser-like] an outlet pipe which recovers dynamic pressure from the flow of mixed [pulp] suspension.

51. Apparatus as recited in claim 37, [38 or 39,] wherein said rotor has a center; and wherein said rotor is formed of a shaft mounted on bearings in said casing.

52. Apparatus as recited in claim 37, [38 or 39,] wherein said inlet and outlet are disposed with respect to each other so that direction of fluid flow changes at most about 100 degrees from said inlet to said outlet.

53. Apparatus as recited in claim 37, [38 or 39,] wherein said outlet is tangential to the direction of rotation of said rotor.